



bladewerx™
Cutting-Edge Technology for Instruments and Measurement Applications



EpeéCAM

Quick Start Guide

What's In The Box?

EpeéCAM

The Bladewerx EpeéCAM is a continuous air monitor that detects alpha and beta emitting particulates while compensating for radon background in real time. It can be configured to measure the presence of specific isotopes and then alarm at a preset level. Measurements are made by pulling air through a filter monitored by the detector. When the captured particulates decay, the emitted alpha and/or beta particles are detected and the EpeéCAM records the isotope of interest particles and their energies. Over the course of several hours, three naturally-occurring peaks will emerge in the data. Using the Alpha Peak Fitting Software, the EpeéCAM subtracts the counts from the naturally-occurring Radon and performs alarm determinations and data reporting for a specific isotope.

Get It Running!

Plug It In

Begin charging the EpeéCAM by plugging in the A/C Adapter. The Charger LED will be red to indicate the battery is charging and will turn green when it is fully charged. The light is off when it is not plugged in. You can play around with it while it is charging.

Check the Filter

I know you want to turn it on, but check if a filter has been installed first. On the radial head (the black cylinder protruding from the right side), twist the Filter Cap until the indents on the cap line up with the screws and pull it out. You should see a filter with the words PUMP SIDE facing out and away from the detector – check! Now just push the filter cap in and twist it until the edge fits under the screws.

Turn It On

Now you can go ahead and push the power button! The green Normal light will come on immediately. It will take 30 seconds to warm up and then you will hear the wonderful hum of the pump running. When you hear the EpeéCAM report “Starting Dose Measurement”, it has begun collecting data.

Install PC Software

While you wait for the counts to accumulate, install the *EpeéCAM Calibration Interface* program file from the customer CD onto the computer.

Transfer Data to PC

Using the mini USB cable, plug the EpeéCAM into the PC. Windows Mobile Device Center will automatically open and sync to device. Click “Connect without setting up your device” – File management – Browse the contents of your device. Click the main hard drive and then open the My Documents folder. Transfer appropriate data files to the location needed.

Run Overnight

Press the Power button and wait for the pump to start running. When the EpeéCAM reports “Normal”, it is ready to be left overnight to collect a sample. In the morning, connect to the *Calibration Interface* and check the spectrum and peak fit curve to verify calibration. It is best to leave the EpeéCAM plugged into the A/C Adapter when doing overnight sampling.

EpeéCAM is ready to go!

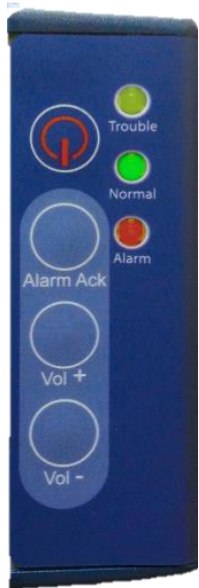
When looking at the spectrum, the red peak fit curve should closely match the spectrum histogram counts.

Radial Head:

Detector Side – mounts detector with face exposed to filter

Filter Side – mounts filter at appropriate distance from detector

Filter Cap – removable cap to insert and remove filters



Buttons:

Power – Turns pump on and off, begins recording data

Alarm Acknowledge – 1st press silences alarm, 2nd press clears alarm

Volume Up and Down – Changes the volume of the voice output

LED Indicators:

Trouble – *yellow* – the CAM is out of calibration and is not sampling correctly

Normal – *green* – the CAM is sampling correctly and counts are at an acceptable level

Alarm – *red* – counts are above the acceptable level

Charger – *red* – charging; *green* – fully charged; *off* – not plugged in

Ports:

Power – for A/C Adapter to wall outlet – used to charge the unit

Mini USB – for mini USB cable to PC – used to download data directly to the PC

USB – for USB memory stick only – used to download data in the field

Audio – for headphones – used to report data and alarm in noisy environments

Reset – used for a hard reset of the instrument



Accessories:

A/C Adapter – to charge the internal battery or power the unit long term

Mini USB cable – to connect CAM to PC for configuration, calibration and pulling data

Shoulder Strap – to carry when used as a personal CAM

Software CD (one per order) – to install software and view manual

Flow Cal Aid (one per order) – to calibrate the air flow of the CAM

Filters (sold separately) – to catch the alpha/beta particulates in front of detector